



Estane® 58246 TPU

Lubrizol Advanced Materials, Inc. - Thermoplastic Polyurethane Elastomer (Polyester)

Wednesday, November 6, 2019

General Information

Product Description

Type: Estane® 58246 is a 50D aromatic Polyester-Based Thermoplastic Polyurethane (TPU).

Features: High stiffness grade with excellent chemical and oil resistance.

Uses: Flat Die/Cast Film Extrusion and Injection Molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Aromatic • Chemical Resistant	• High Stiffness • Oil Resistant	
Uses	• Cast Film		
Agency Ratings	• FDA 21 CFR 177.1680	• FDA 21 CFR 177.2600	
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Cast Film	• Extrusion	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.23		ASTM D792
Elastomers	Nominal Value	Unit	Test Method
Tensile Set (200% Strain)	12	%	ASTM D412
Tensile Stress (100% Strain, 0.0300 in)	1800	psi	ASTM D412
Tensile Stress (300% Strain, 0.0300 in)	4450	psi	ASTM D412
Tensile Strength (Break, 0.0300 in)	9300	psi	ASTM D412
Tensile Elongation (Break, 0.0300 in)	420	%	ASTM D412
Tear Strength ² (0.0300 in)	801	lbf/in	ASTM D624
Tear Strength (Split)	180	lbf/in	ASTM D470
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 5 sec)	47 to 53		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-4.00	°F	DSC
Melting Temperature	338	°F	DSC
Kofler Melting Temperature	320	°F	Internal Method

Processing Information

Extrusion	Nominal Value	Unit
Drying Temperature	219	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Cylinder Zone 1 Temp.	390	°F
Cylinder Zone 2 Temp.	399	°F

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Extrusion	Nominal Value	Unit
Cylinder Zone 3 Temp.	410	°F
Cylinder Zone 4 Temp.	421	°F
Adapter Temperature	430	°F
Melt Temperature	424	°F
Die Temperature	430	°F

Extrusion Notes

Dew Point: -40°C

Screen Pack Recommendation: 20/40/80/20

Notes

¹ Typical properties: these are not to be construed as specifications.

² Die C